

CLEAN VERSION OF REPLACEMENT PARAGRAPHS

In the Specification

On page 1 line 6, before the first paragraph starting with "The present invention", please insert the following paragraph.

--Cross-Reference to Related Applications

A1
This application is a continuation of U.S. Application number 09/142,115 filed 09/04/98 which was the National Stage of International Application No. PCT/EP97/01144 filed 03/06/97, which claims priority to German Application No. 196 09 462.3 filed 03/11/96. Thus, U.S. Application number 09/142,115 is incorporated herein by reference in its entirety.--

Please replace the paragraph starting at page 3 line 26 with the following paragraph.

AR
--The distribution of the liquid ,i.e., drainage, to the front and rear ends of the article is achieved especially favorably by way of the feature that the liquid distribution layer has an undulating strip of material or a pleated strip of material whose undulations are arranged in such a way that the liquid is preferentially drained off in the longitudinal direction and toward the ends of the article. The undulating strip of material or the pleated strip of material can consist of a textile material, for example, whereby this has virtually no absorptive capacity of its own; as a result, one prevents the situation in which this strip of material permanently retains the liquid. The undulating strip of material serves primarily in draining off the liquid ,i.e. drainage, and as a spacer. Visible discernment of the absorptive element, which has been in contact with liquid, can be prevented if the undulating strip of material additionally contains a colorant such as a dye; as a result, one increases the subjective feeling of cleanness of the male or female wearer of the article.--

Please replace the paragraph starting at page 4 line 13 with the following paragraph.

A3 --The undulating strip of material is preferably connected to an additional strip of material that, on the one hand, can assist in stabilizing the undulations and, on the other hand, can also assist the directed transport of the liquid that has penetrated into the article. A so-called uncreped-through-air-dried material, UCTAD material, has proven to be especially suitable for such an additional strip of material.--

Please replace the paragraph starting at page 6 line 25 with the following paragraph.

A4 --According to a preferred form of embodiment of the article in accordance with the invention, the additional strip of material has a central area, as seen in the longitudinal direction, without funnel-shaped openings and the undulating strip of material is applied to the central area. The funnel-shaped openings are located in the area located at the edges as seen in the longitudinal direction. The edges with the funnel-shaped openings are now folded under the area provided with the undulating strip of material, in such a way that the funnel-shaped openings with their tapering areas lie opposite the liquid storage layer. As a result of introducing the funnel-shaped openings into the additional strip of material after fabrication of such additional strip of material, e.g., by piercing with needles or other suitable mechanical means, the additional strip of material becomes perforated; as a result, small absorptive feet can form at the tapering end of the funnel-shaped openings. Especially effective fluid transport is achieved when these small absorptive feet are in contact with the liquid storage layer since this assists the directed transport of liquid from the liquid distribution layer to the liquid storage layer. The folding inward of the additional strip of material can be arranged in such a way that it takes place from each side as far as, approximately, the middle of the additional strip of material. However, the edge areas can also have the same breadth as the area with the additional strip of material on which the undulating strip of material has been pleated. As a result of folding in the edge areas, which have been provided with funnel-shaped openings, a triple layer structure is formed underneath the additional strip of material. This triple layer structure effectively prevents rewetting from arising in the liquid distribution layer by liquid from the liquid storage (component).--

Please replace the paragraph starting at page 12 line 20 with the following paragraph.

As
FIG. 1
--Figure 1 shows an absorbent article 10 with a front area 12, a rear area 14, and a central part 16 that joins the front and rear areas together. The liquid-permeable, upper covering layer of highly pigmented spun textile material is given the reference number 18 and the lower liquid-impermeable layer of the absorbent article is given the reference number 20. The liquid distribution layer 22 is arranged below the liquid-permeable layer 18. In the form of embodiment in accordance with Figure 1, the directed transport of liquids into the terminal areas of the absorbent article 10 takes place by means of the undulating strip of material 26. As illustrated in FIGURES 1, 4, and 5, the transverse undulated configuration of the undulating strip defines longitudinal transport channels that, in some embodiments, may be void of any tangible material which would impede free flow of liquid along the channels. The undulating strip of material 26 is pleated onto an additional strip of material 28. The undulating strip of material 26 is assembled from a textile material (pigmented spun textile material) and the additional strip of material 28 is assembled from an UCTAD material. In this regard, the additional strip of material 28 is folded over downward in the edges so that the areas that have been folded over come to lie parallel to the undulating strip of material. Passages defining funnel-shaped openings 30 are to be found in the folded over areas at the additional strip of material 28. The liquid storage layer 24 is located underneath the additional strip of material 28.--

Please replace the paragraph starting at page 15 line 1 with the following paragraph.

As
FIG. 3A
--Figure 3A is an enlarged section of the contact area between the liquid distribution layer 22 and the liquid storage layer 24. The preferential direction of liquid transport is again indicated by the arrows in Figure 3. Figure 3 shows the additional strip of material 28 assembled in the form of three layers. In this regard, the uppermost layer 28a, to which the undulating strip of material is applied, is arranged without funnel-shaped openings. In contrast, the take-away layers 28b and 28c, which lie underneath, have funnel-shaped openings 30. As a result of the configuration of the funnel-shaped openings 30, one brings about the situation in which the take-away

Al
layers 28b and 28c can be separated from one another by a certain distance as shown in Figure 3B; as a result, one prevents any upward return of liquid. A separation 44 can be formed (Figure 3B) between the take-away layer 28c and the additional strip of liquid storage layer 24 by means of the funnel-shaped openings 30, whereby this separation also contributes to the prevention of liquid being transferred back from the liquid storage layer 24 to the liquid distribution layer 28.--

Please replace the paragraph starting at page 16 line 8 with the following paragraph.

29226-1PCT/US / KC13,065.1-US
--Figure 5 is a section, which is illustrated on an enlarged scale, from Figure 4. It also shows the undulating strip of material 26 in the form of a cross section. The undulating strip of material 26 is connected to the additional strip of material 28 via a number of points of contact. The layer 28 comprises the three layers 28a, 28b, and 28c. The layer 28a, which supports the undulating strip of material 26, does not have any openings 30. In contrast, the two take-away layers 28b and 28c, which are arranged below it, contain funnel-shaped openings 30 that assist the vertically directed flow of that which has penetrated therein. A canal-type structure is generated by this flow, which is directed vertically downward, and prevents any upward return of liquid. Upward release of liquid via the layer 28 almost never takes place.--

Please replace the paragraph starting at page 26 line 1 with the following paragraph.

29226-1PCT/US / KC13,065.1-US
--Method for directed drainage of fluids emerging in a localized manner, and further absorbent article which comprises: a front region; a rear region; a central region between the front and rear regions; an upper layer permeable to body fluids and which faces the body of the user when the absorbent article is in use; a lower layer impervious to body fluids and which is remote from the body of the user when the absorbent article is in use; a fluid-distribution layer disposed between the fluid-permeable layer and the impervious layer, the fluid-distribution layer extending from the front region to the rear region; and a fluid-storage layer disposed between the lower layer and the fluid-distribution layer. The absorbent article comprises one or